WAR FOOD ADMINISTRATION
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DRIED WHOLE EGGS IN SCHOOL LUNCH PROGRAMS

Dried eggs for the soldier's mess kit! Dried eggs for the allied nations! And now dried eggs for school lunches! As transportation and storage facilities become more limited, we are realizing the value of dehydrated foods and the advantages they offer in furthering our nation's war effort.

PHYSICAL QUALITIES AND FOOD VALUE. Dried, or powdered, whole egg, long known to the baking industry, is an unfamiliar product to most school lunch managers. Whole egg powder may vary in color from light yellow to yellowish orange. Dried eggs become extremely useful when fresh, cold storage, or frozen eggs are not available. They have practically the same food value as fresh eggs. And eggs are next to milk in the diet as sources of good protein, iron, vitamin A, and riboflavin.

PACKAGING AND STORING. The dried whole eggs allocated for use in the school lunch program will be packed for the most part in 14-pound pasteboard boxes. Some shipments may be made in lined barrels of 150 pound capacity.

Dried eggs must be kept in a tightly-covered container, in a cool, dry place, away from foods from which odors and flavors may be absorbed, if they are to retain their high quality.

To prevent deterioration, egg powder should be held at a temperature ranging from 50° to 70° F. Under no circumstances should the storage temperature go higher than 85° F. A refrigerator that maintains a temperature of 50°F. or less is ideal for long storage, expecially after the container has been opened. It is important to return the container of the egg powder to a suitable storage place soon after removing the quantity of the powder needed in the preparation of a meal; letting it stand in a warm kitchen as food preparation continues gives the contents a chance to absorb moisture and become warm. After opening the container and removing some of the egg powder, the lining should be folded down carefully and the lid of the container adjusted closely to exclude as much air as possible.

Dried whole eggs, because of their low moisture content, absorb moisture rapidly if stored in a damp place. The absorption of moisture causes the powder to become lumpy and makes it difficult to reconstitute; increases the chances of spoilage, and allows for changes in flavor.

Egg powder, like milk and cream, absorbs odors and flavors easily, especially if not kept in tightly closed containers. It should not be stored near foods having strong odors or flavors, or in a musty storage room.

RECONSTITUTING DRIED WHOLE EGGS. Egg powder is reconstituted by adding water to replace that which was removed in the drying process. To reconstitute dried egg, use equal measures of egg and either cold or slightly warm water. Measure the powder into a mixing bowl, add a small amount of the water, and mix until smooth with a spoon. Continue adding the water while stirring; as lumps form, work them

* Adapted, Information from the U. S. Bureau of Home Economics

out with a spoon against the side of the bowl. The reconstituted mixture is perishable, and should either be used at once or kept in a cold place.

APPROXIMATE EQUIVALENTS OF FRESH AND DRIED WHOLE EGG. The number of shell eggs represented by a pound of the egg powder varies with the size of the fresh eggs. As a rough guide, a pound of dried whole eggs may be considered to represent the content of about 3 dozen medium-sized eggs (shell eggs weighing 24 ounces to the dozen). On this basis, a 14-pound box contains the equivalent of about 500 fresh eggs.

The table below shows approximate equivalents of fresh and dried whole eggs in terms of measure, with proportions of water to use in reconstituting the egg powder.

Fresh Eggs	Dried Whole Egg (level measure)	Water
1	2 tablespoons	2 tablespoons
2	1/4 cup	1/4 cup
3	6 tablespoons	6 tablespoons
4	1/2 cup	1/2 cup
5	10 tablespoons	10 tablespoons
6	3/4 cup	3/4 cup
8	1 cup	1 cup
10	1-1/4 cup	1-1/4 cup
12	1-1/2 cup	1-1/2 cup

Studies made in the Bureau of Home Economics and other laboratories indicate that the best results in the use of whole egg powder are obtained if it is reconstituted as directed above before adding it to other ingredients in a recipe. This was found true even in making cake, muffins, cornbread, and griddle cakes, although directions are sometimes given for sifting the egg powder with the dry ingredients in recipes for such products. It is, of course, always necessary to reconstitute the egg powder in making scrambled eggs, omelet, custard, and salad dressing.

School lunch managers and cooks will find dried eggs excellent to use in the preparation of such foods as meat, fish and bean loaves, baked and soft custards, puddings such as caramel and custard, tapioca, rice, and pumpkin puddings, noodles, dumplings, muffins, quick breads, cakes, cookies, and salad dressings. High quality scrambled eggs can also be prepared from the egg powder. To add extra nourishment and to help improve flavor, add reconstituted dried eggs to the cream or white sauce for scalloped and creamed dishes.

Special recipes for the use of dried whole eggs are not necessary; the reconstituted whole egg powder is simply used in place of fresh eggs in suitable recipes that have been tested and found satisfactory.